

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks herewith, which place the application into condition for allowance.

STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-3 are currently pending. Claim 1 is independent.

I. REJECTIONS UNDER 35 U.S.C. §102

The Office Action rejected claim 1 under 35 U.S.C. § 102(b) as anticipated by U.S. 5,548,415 (Tanaka). Applicants respectfully traverse this rejection.

The Office Action asserts that Figs. 1, 4, 12, and 16 of Tanaka disclose each and every limitation recited in Claim 1. However, applicants respectfully submit that Tanaka does not disclose the density judgment limitation recited in claim 1:

“a density judgment section which determines the relevant pixel to be a prospective object pixel when the density of the relevant pixel is higher than a first threshold value higher than the density of the background of the border of the original and not higher than the density of a thinnest line in lines which form said characters and is not higher than a second threshold value not lower than the density of a thinnest line in lines which form said characters . . .”

The Office Action asserts that figure 4 of Tanaka discloses comparators 14, 15, and 25 that output the respective edge detection signals based on the densities of the pixels. However, Tanaka fails to disclose the specific density judgment limitation recited in claim 1. As applicants understand the reference, the comparator disclosed in Tanaka detects edges based on the value of a relevant pixel and the values of pixels adjacent to the relevant pixel.

In contrast, the density judgment limitation recited in claim 1 determines a relevant pixel to be a prospective object pixel when the density of the relevant pixel is higher than a first threshold value, which is higher than the density of the background of the border of the original and not higher than the density of a thinnest line from among lines that form the characters and is not higher than a second threshold value not lower than the density of a thinnest line from among lines that form the characters.

Figures 1, 4, 12, and 16 of Tanaka and descriptions corresponding to figures 1, 4, 12, and 16 do not teach or suggest the density judgment section recited in claim 1.

The Office Action asserts that the specific values are not claimed as the thresholds. As an aspect of the present invention, the first threshold value is defined as the value which is higher than the density of the background of the border of the original and not higher than the density of a thinnest line from among lines that form the characters, the second threshold value is definitively identified as the value which is not lower than the density of a thinnest line from among lines that form the characters.

Tanaka does not disclose determining the relevant pixel is the object pixel to be subjected to enhancement processing when the density judgment section determines the relevant pixel to be a prospective object pixel and the thin line image detecting section determines the relevant pixel to be a thin line pixel. Tanaka does not disclose this method of determining the object pixel to be subjected to enhancement processing. That is, Tanaka does not describe the thresholds recited in claim 1.

The Office Action asserts that Tanaka discloses that density judgment is not merely edge detection but also a judgment based on the detected edges. This is an incorrect reading of the language of claim 1. However, the density judgment in Tanaka is different from the specific density judgment performed by the density judgment section recited in claim 1. This reading eliminates the thresholds recited in the claims.

Therefore, it is respectfully submitted that the Office Action has read this limitation out of claim 1 and that Tanaka does not disclose this limitation. Because a prior art reference must disclose each and every limitation recited in a claim to anticipate under 35 U.S.C. § 102(b), Tanaka does not anticipate claim 1. Applicants respectfully submit that claim 1 is in condition for allowance.

II. REJECTIONS UNDER 35 U.S.C. §103

The Office Action rejected claims 2 and 3 under 35 U.S.C. § 103(a) as obvious over U.S. 5,548,415 (Tanaka) in view of U.S. 6,175,659 (Huang). Claims 2 and 3 depend from claim 1 and recite each and every limitation of claim 1. As applicants understand the references, neither Tanaka nor Huang, alone or in combination, disclose or suggest the density judgment limitation recited in claim 1. Claims 2 and 3 are patentable over Tanaka in view of Huang for at least the

same reasons that claim 1 is patentable over Tanaka. Applicants respectfully submit that claims 2 and 3 are in condition for allowance.

CONCLUSION

Reconsideration and withdrawal of the rejections and objections of the application are respectfully requested in view of the amendments and remarks presented herein. In view of the foregoing, favorable consideration of claims 1-3 is earnestly solicited. If however, there is still an outstanding issue; the Examiner is invited to contact the undersigned for its prompt attention.

The Commissioner is authorized to charge any additional fee that may be required to
Deposit Account No. 50-0320.

Respectfully submitted,
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